

Patent claims

1. An apparatus (20, 30) for curing radiation-curable coatings, which has at least one irradiation chamber (22, 32) provided with a plurality of UV radiation sources (18), wherein a plurality of UV radiation sources (18) are arranged close to one another and interconnected to form one or more irradiation modules (10), the aluminance inside an irradiation module (10) and/or between at least two irradiation modules (10) being spatially variable.
2. The apparatus as claimed in claim 1, wherein lamps, preferably fluorescent tubes (18) with a power of 0,1 to 10 W per cm radiator length, preferably 1 W per cm radiator length are provided as UV radiation sources.
3. The apparatus as claimed in claim 1, wherein the UV radiation sources (18) have a continuous emission spectrum between 200 and 450 nm, preferably between 300 and 450 nm.
4. The apparatus as claimed in claim 2 or 3, wherein a ventilation system (16) is provided for cooling the surface of the UV radiation sources (18).
5. The apparatus as claimed in claim 1, wherein at least a plurality of radiation sources (18) have reflectors, preferably with emission angles of 160°.
6. The apparatus as claimed in claim 1, wherein at least one irradiation module (10) is arranged in the apparatus (20, 30) in a fashion capable of movement about at least one of its axes.
7. The apparatus as claimed in claim 1, wherein the illuminance of at least one irradiation module (10) can be set in the temporally variable fashion.

8. An irradiation module (10), in particular for an apparatus (20, 30) as claimed in claim 1, wherein it has a plurality of UV radiation sources (18) that are arranged close to one another and are interconnected, the illuminance inside the irradiation module (10) being spatially variable.
9. The irradiation module as claimed in claim 8, wherein lamps, preferably fluorescent tubes (18) with a power of 0,1 to 10 W per cm radiator length, preferably 1 W per cm radiator length are provided as UV radiation sources.
10. The irradiation module as claimed in claim 8, wherein the UV radiation sources (18) have a continuous emission spectrum between 200 and 450 nm, preferably between 300 and 450 nm.
11. The irradiation module as claimed in claim 8, wherein a ventilation system (16) is provided for cooling the surface of the UV radiation sources (18).
12. The irradiation module as claimed in claim 8, wherein at least a plurality of radiation sources (18) have reflectors, preferably with emission angles of 160°.
13. The irradiation module as claimed in one of claims 8 to 12, wherein it can be held in the apparatus in a fashion capable of movement about at least one of its axes.
14. The apparatus as claimed in claim 8, wherein the illuminance of at least one irradiation module (10) can be set in a temporally variable fashion.